Original Research

Canadian undergraduate medical education: family physician involvement

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A questionnaire designed to determine the nature and extent of family physicians' involvement in Canadian undergraduate medical education was sent in the fall of 1985 to the person in each department of family medicine in the 16 Canadian medical schools who was responsible for the undergraduate program. The questionnaires were followed up by visits to each school. The findings revealed that approximately 1200 family physicians were teaching 7400 Canadian medical students. There was considerable variation in the total curriculum time devoted to family medicine and in the content of and support for an undergraduate curriculum in family medicine across the country. In order to achieve nationally acceptable standards and greater continuity between undergraduate and postgraduate training, the College of Family Physicians of Canada and the Association of Canadian Medical Colleges should develop objectives and program requirements.

Enquête par questionnaire, puis par visite sur les lieux, quant au rôle joué par les omnipraticiens dans l'enseignement de la médecine au niveau prédoctoral, auprès du directeur de cet enseignement dans le département de médecine familiale de chacune des 16 facultés canadiennes de médecine. Environ 1200 omnipraticiens enseignent à quelque 7400 étudiants en médecine. Le nombre d'heures prévues au programme pour l'enseignement de la médecine familiale et l'appui qu'on lui donne sont fort différents d'une région à l'autre. Afin de définir des normes pour cet enseignement et d'en assurer la continuité avec la formation post-doctorale, il est proposé que le Collège canadien des médecins de famille et l'Association des facultés de médecine du Canada définissent les buts de cet enseignement et en élaborent le programme nécessaire.

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When the Department of Family Medicine at the University of Manitoba began to take on responsibilities for undergraduate teaching, information was needed on similar activities at other medical schools. However, we found no way of determining the national trend in the involvement of family physicians as teachers.

Since the College of Family Physicians of Canada (CFPC) disbanded its Committee on Undergraduate Education, more than a decade ago, there has been no regular collection and dissemination of detailed information about family physicians' involvement in Canadian undergraduate medical education. Yet in 1984 three reports listed specific recommendations for undergraduate medical education, and these recommendations are being discussed at the national level, without background knowledge of what is currently being taught.[1-3]

The report of the Association of American Medical Colleges' Panel on the General Professional Education of the Physician[1] does not define specific roles for any medical discipline but makes 27 recommendations, several of which have implications for family medicine, such as a greater emphasis on the acquisition and development of skills, values and attitudes, on health promotion and disease prevention, and on the use of community settings such as physicians' offices and nonteaching hospitals for teaching.

The British Association of University Teachers in General Practice[2] analysed the contribution that general practice could make to the undergraduate curriculum, in the context of the General Medical Council's recommendations on basic medical education,[4] and concluded that it could achieve at least 15 of the 20 educational objectives listed.

Finally, the CMA's Task Force on Education for the Provision of Primary Care Services recommended a continuum between undergraduate and postgraduate training as preparation for primary care practice.[3] During the 1985 CFPC Workshop on

Certification, discussion of this recommendation was considerably hampered by the lack of a central source of current and accurate information on the content of family medicine in undergraduate curricula.

I decided to survey all 16 departments of family medicine in Canada and visited all but 2 of them in the fall of 1985. The information obtained is based on the 1985–86 academic year.

Methods

The head of the department of family medicine in each Canadian medical school was asked to identify the person who was administratively responsible for organizing undergraduate teaching. This person received a questionnaire and was encouraged to complete it before my visit. All of the schools cooperated. Two schools were not visited, and the discussion and clarification were handled by mail, telephone or both.

Apart from several questions on the number of teachers, students and residents (Table I), respondents were asked to describe the formal administrative structure, if any, and the department's control over the involvement of family physicians in undergraduate teaching, to explain, if necessary, the involvement not under departmental control or direction, to estimate the percentage of the departmental budget that was devoted to undergraduate teaching, to describe the funding for part-time teachers and other personnel, including secretaries, provided by the university, government or other agencies, to describe the evaluation and development procedures of faculty, if any, and to identify for each year those programs conducted by the department and those not conducted by the department but that involved family medicine or family physicians.

I discussed the responses with the undergraduate program directors during my visits.

Results

Some of the questionnaire responses differed from the facts obtained during my visits.

Table I — Results of a questionnaire sent to program directors of undergraduate medical education in departments of family medicine, by Canadian medical school

Medical school	Faculty, no.		No. of students	No. of residents	% of faculty's time devoted to undergraduate education		No. of part-time faculty teaching only undergraduate subjects	% of departmental budget allocated to undergraduate education
	Geographic full-time	Part-time			Geographic full-time	Part-time		
University of British Columbia	6	125	500	30	5	90	115	6
University of Calgary	11	100	216	72	15	90	90	11–25
University of Alberta	9	80	480	50	5–10	10	15	6–10
University of Saskatchewan	11	75	290	36	10–15	90	67	8
University of Manitoba	12	125	400	36	4	70	117	30
University of Western Ontario	14	94	420	54	15–20	90	70	11–25
McMaster University	26	90	300	78	5	95	60	6–10
University of Toronto	60	180	1000	144	20	20	30	11–25
Queen's University	12	45	300	45	10	75	0	30
University of Ottawa	15	50	336	47	10	85	35	20
McGill University	34	50	640	70	10	10	0	6–10
University of Montreal	16	45	900	84	5	5	0	6
University of Sherbrooke	13	100	400	80	5	2	10	6
Laval University	21	135	600	70	10	50	50	33
Dalhousie University	10	94	384	39	30	45	37	30
Memorial University	12	45	224	30	15	50	22	–

Teachers and teaching time

There were 1196 family physicians teaching approximately 7400 students during the study period; 718 were teaching part-time exclusively at the undergraduate level. The percentage of time devoted to undergraduate teaching by geographic full-time teachers (GFTs) differed from university to university (4% to 30%). Schools with more GFTs did not necessarily have higher percentages; in fact, one school, in which 30% of the GFTs' time was devoted to undergraduate education, had a low number of GFTs in relation to the number of students and residents.

Organization and control

From the initial responses of the department heads it appeared that in 13 of the 16 departments physicians functioned as the directors of undergraduate education, but my visits revealed otherwise. In one department the person named did not function as the director; in fact, there was no director. In the three departments in which the position was said to be nonexistent, the task was performed by a family physician who was appointed as an associate dean, a director of medical education or a department head. Therefore, in 15 departments physicians functioned in the role, regardless of their title.

Ten departments claimed to have a formal administrative structure (e.g., a committee on undergraduate education), but in one there was no apparent structure. In two of the six departments that claimed not to have such a structure committees existed and met regularly.

Twelve departments claimed to control 90% to 100% of the teaching activities of the family physicians; only one department claimed to control less than 75%. Most departments that did not have 100% control were following school policy: the undergraduate curriculum was to be directed in an interdisciplinary manner.

Financial support

In at least half of the schools the directors were unaware of the concept, or the specific amount, of the department's budget for undergraduate education. In some cases even department heads were unwilling or unable to estimate the percentage of the budget allocated to undergraduate teaching, and some could only estimate a range.

The information on funding for part-time teachers was as follows: 14 departments had a defined system, but 1 had inadequate funding; 1 department had no defined system and had inadequate funding; and 1 had no system and no funding.

Only three departments had full-time secretaries. In at least two schools there was considerable, probably adequate, support from the dean's office. In seven others the support was provided as part of the job description of one or more of the other secretaries. In the remaining schools secretarial support was available but inadequate.

Evaluation and development of faculty

Thirteen departments had programs for faculty evaluation, and 12 had programs for faculty development. Although there was evidence that such a system was well developed (e.g., evaluation forms) the system was not necessarily used, as I discovered at my visits. The patterns of development and use included well-developed and regularly used (four schools), well-developed but rarely used (two schools), poorly developed or poorly used (four schools), and not developed or not used (six schools). In one department the annual participation in a faculty development program was mandatory for continuing membership.

Curriculum time and content

It was difficult to assign time values to certain types of involvement, including elective programs, interdisciplinary programs and programs to which family physicians contributed but which were controlled by other departments or organizations. Program directors therefore estimated the percentage of class members doing each elective program and the contribution of family physicians toward interdisciplinary programs and programs controlled by other departments.

According to these estimates the schools fell into four categories of total curriculum hours: 68 to 94 hours, University of Alberta, McGill University and University of Sherbrooke; 117 to 156 hours, University of British Columbia, University of Calgary, University of Montreal, Queen's University and University of Toronto; 186 to 251 hours, Dalhousie University, McMaster University, Memorial University and University of Ottawa; 290 to 324 hours, Laval University, University of Manitoba, University of Saskatchewan and University of Western Ontario.

Several schools are planning to increase the number of family physicians involved in the undergraduate curriculum.

Methods of involvement in curriculum

Preclerkship: All the departments offered first-year courses; only five controlled the core curriculum, and seven contributed to it in the penultimate year. Five departments offered electives to first-year students; four of them offered electives in the penultimate year. The following courses were taught: communication and history-

taking (14 departments), basic physical examination (11), advanced clinical skills (11) and an introduction to family medicine (8). There were many other areas of involvement, mostly elective; those in the core curriculum included medicine and society, family structure and function, human growth and development, and ethics.

Clerkship: Three departments did not have a clerkship, and three offered it as an elective. In eight schools the clerkship occurred in the final year, and in two it was in the penultimate year. Clerkships varied considerably in the length (from 2 to 8 weeks), the format (from 100% clinical to 50% clinical and 50% seminar), the location (family practice teaching units, urban community teaching practices and nonurban or remote teaching practices) and the level of clinical responsibility (greatest in the final year of nonurban rotations and least in the penultimate year of teaching-unit rotations, with strong emphasis on seminars and none on on-call duties). The clinical content of each clerkship depended on the mixture of variables indicated. Elective clerkships usually lasted from 2 to 4 weeks and occurred in the locations mentioned and in emergency departments.

Discussion

The departments of family medicine were involved in the undergraduate curriculum in every Canadian medical school. In at least 10 schools this involvement occurred in all years of the undergraduate program. The extent and nature of the involvement varied considerably among the schools, as did the administrative and financial support and the use and development of resources.

The differences in the amounts of curriculum time between the schools may well be accounted for by the philosophy and tradition of each school, as well as differing attitudes toward family medicine. In the schools with little involvement, the principal reason appeared to be the lack of a clearly defined and perceived curriculum for family medicine.

Definitions of such things as "adequate" support and "well-developed" evaluation did, of course, differ among the respondents, but some measure of objectivity was achieved by questioning during my visits. The kind of information that was sought rendered "scientific" precision impossible, but some information now exists when it had not before. Further investigation could perhaps explore the time spent by faculty in clinical or classroom teaching.

Although much of the information was estimated, and therefore imprecise, it was obtained directly from the people responsible for the undergraduate curriculum, rather than a central office with little awareness of what was actually being taught to whom and by whom.

So what have we learned? Family medicine lacks a national theme for its undergraduate curriculum. An introduction to the specialty was taught in only eight schools. Not all of the schools had a family medicine clerkship; in some of those that did, the clerkship occurred at a level or in a format or setting where its usefulness as a clinical rotation was in question. A significant factor in the lack of a national theme appeared to be the lack of consultation or agreement among the 16 departments of family medicine. Considerable differences existed in the financial support and the use of resources. In contrast, the program directors of the postgraduate curricula in family medicine have been guided for almost 2 decades by nationally conceived and accepted program requirements,[5] educational objectives[6] and a certifying examination.[5] These directors also have an opportunity each year to discuss matters of mutual concern at the CFPC's Workshop on Certification, where they can develop a national consensus on issues and play a part in the CFPC's formulation of policy.

A similar forum is clearly needed for those involved in developing the undergraduate curricula in family medicine. The CFPC's Section of Teachers has expressed an interest in sponsoring such a forum. The CFPC should also consider resuming its gathering of data on undergraduate teaching of family medicine and perhaps even formulate guidelines for such teaching.

Canadian medical schools need to examine the discipline of family medicine and their attitudes toward it. Perhaps this could be accomplished through the Association of Canadian Medical Colleges, in consultation with the CFPC and against the background of the three reports mentioned earlier.[1-3] Only then will undergraduate teaching of family medicine begin to achieve the standards that are a hallmark of residency training in family medicine.

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